

Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

- 1 Claims 1-12 (Canceled).
- 1 Claim 13 (previously presented). A computer implemented method for
2 creating or manipulating one or more drawings or sets of formatted data
3 representing a physical environment, comprising the steps of:
 - 4 a) using a computer for creating, formatting, editing or
5 manipulating one or more objects defining an environment in which an in-
6 building or campus communications network may be deployed, said
7 environment having one or more of floors, walls, partitions, buildings,
8 building complexes or compounds, terrain, foliage, or other sites or
9 obstructions;
 - 10 b) grouping a number of said one or more objects into at least one
11 editable layer;
 - 12 c) verifying, using a computer, the sufficiency of said one or more
13 objects to ensure a useful definition of said environment and notifying a
14 user of results of said verification of sufficiency;
 - 15 d) generating at least one formatted drawing or at least one set of
16 formatted data containing computer representations of said one or more
17 objects in a form transportable to and usable by a communications
18 engineering or network management application; and
19 e) rendering a three-dimensional view of said environment.
- 1 Claim 14 (previously presented). The method of claim 13 further
2 comprising the step of adding or editing at least one object in said at least
3 one editable layer or in said at least one formatted drawing or in at least
4 one set of formatted data.

1 Claim 15 (Currently amended). The method of claim 13 further
2 comprising the step of moving at least one object in said at least one ~~one~~
3 editable layer or in said at least one formatted drawing or in at least one set
4 of formatted data.

1 Claim 16 (previously presented). The method of claim 13 further
2 comprising the step of modifying at least one object in said at least one
3 editable layer or in said at least one formatted drawing or in at least one set
4 of formatted data.

1 Claim 17 (Currently amended). The method of claim 13 wherein said step
2 of a) includes the step of removing extraneous objects from said one or
3 more objects or from said at least one formatted drawing or ~~in~~ from at least
4 one set of formatted data.

1 Claim 18 (Currently amended). The method of claim 13 wherein said step
2 a) includes the step of tracing and adding a traced object to said one or
3 more objects ~~or more objects or to~~ from said at least one formatted
4 drawing or to ~~in~~ at least one set of formatted data.

1 Claim 19 (previously presented) The method of claim 13 wherein said
2 step a) includes the step of modifying one or more objects or one of
3 electrical properties, physical properties, aesthetic properties, or spatial
4 configurations of one or more objects.

1 Claim 20 (previously presented). The method of claim 13 wherein said
2 notifying performed in said verifying and notifying step is performed in an
3 automatic fashion without feedback being provided to the user.

1 Claim 21 (previously presented). The method of claim 13 wherein said
2 notifying performed in said verifying and notifying step is performed by
3 prompting the user and, when required to provide said useful definition,
4 requires the user to correct any insufficiencies in response to an
5 insufficiency notification.

1 Claim 22 (previously presented). The method of claim 13 wherein said
2 communications engineering or network management application is
3 selected from the group consisting of wireless propagation models,
4 measurement tools, component placement or layout visualization tools,
5 optimization tools, bill of materials generating tools, asset management
6 tools, and network performance management or prediction tools.

1 Claim 23 (previously presented). The method of claim 13 further
2 comprising the step of scaling at least part of said at least one formatted
3 drawing or said at least one set of formatted data or at least one object of
4 said one or more objects.

1 Claim 24 (previously presented). The method of claim 13 further
2 comprising the step of adding measurement data to said at least one of said
3 one or more objects or said at least one formatted drawing or said at least
4 one set of formatted data.

1 Claim 25 (previously presented). The method of claim 13 further
2 comprising the step of specifying or invoking a propagation model for
3 performing predictions of performance.

1 Claim 26 (previously presented). The method of claim 13 further
2 comprising the step of specifying or invoking a listing of communications
3 equipment.

1 Claim 27 (previously presented). An apparatus for creating or
2 manipulating one or more drawings or sets of formatted data representing a
3 physical environment, comprising:

4 computer implemented means for creating, formatting, editing or
5 manipulating one or more objects defining an environment in which an in-
6 building or campus communications network may be deployed, said
7 environment having one or more of floors, walls, partitions, buildings,
8 building complexes or compounds, terrain, foliage or other sites or
9 obstructions;

10 means for grouping a number of objects into at least one editable
11 layer;

12 means for verifying, using a computer, the sufficiency of said one
13 or more objects to ensure a useful definition of said environment and
14 notifying a user of results of said verification of sufficiency;

15 means for generating at least one formatted drawing or at least one
16 set of formatted data containing computer representations of said one or
17 more objects in a form transportable to and usable by a communications
18 engineering or network management application; and

19 means for rendering a three dimensional view of said environment.

1 Claim 28 (previously presented). The apparatus of claim 27 further
2 comprising a means for adding or editing at least one object in said at least
3 one editable layer or in said at least one formatted drawing or said at least
4 one set of formatted data.

1 Claim 29 (previously presented). The apparatus of claim 27 further
2 comprising a means for moving at least one object in said at least one
3 editable layer or in said at least one formatted drawing or said at least one
4 set of formatted data.

1 Claim 30 (Currently amended). The apparatus of claim 27 further
2 comprising a means for modifying an object in said at least one editable
3 layer or in said at least one formatted drawing or said at least one set of
4 formatted data ~~in said one layer of grouped objects~~.

1 Claim 31 (Currently amended). The apparatus of claim 27 further
2 comprising a means for removing extraneous objects from said one or
3 more objects or from said at least one formatted drawing or from ~~in~~ at least
4 one set of formatted data.

1 Claim 32 (Currently amended). The apparatus of claim 27 further
2 comprising a means for tracing and a means for adding a traced object to
3 said one or more objects or to said at least one formatted drawing or to said
4 ~~in~~ at least one set of formatted data.

1 Claim 33 (previously presented). The apparatus of claim 27 further
2 comprising a means for modifying one or more objects or one or more of
3 electrical properties, physical properties, aesthetic properties, and spatial
4 configurations of one or more objects.

1 Claim 34 (previously presented). The apparatus of claim 27 wherein
2 notifying performed by said means for verifying and notifying is performed
3 in an automatic fashion without feedback being provided to the user.

1 Claim 35 (previously presented). The apparatus of claim 27 wherein
2 notifying performed by said means for verifying and notifying is performed
3 by prompting the user and, when required to provide said useful definition,
4 requires the user to correct any insufficiencies in response to an
5 insufficiency notification.

1 Claim 36 (previously presented). The apparatus of claim 27 wherein said
2 communications engineering or network management application is
3 selected from the group consisting of wireless propagation models,
4 measurement tools, component placement or layout visualization tools,
5 optimization tools, bill of materials generating tools, asset management
6 tools, and network performance management or prediction tools.

1 Claim 37 (previously presented). The apparatus of claim 27 further
2 comprising a means for scaling at least part of said at least one formatted
3 drawing or said at least one set of formatted data or at least one object of
4 said one or more objects.

1 Claim 38 (previously presented). The apparatus of claim 27 further
2 comprising a means for adding measurement data to at least one of said
3 one or more objects or said at least one formatted drawing or said at least
4 one set of formatted data.

1 Claim 39 (previously presented). The apparatus of claim 27 further
2 comprising means for specifying or invoking a propagation model for
3 performing predictions of performance.

1 Claim 40 (previously presented). The apparatus of claim 27 further
2 comprising a means for specifying or invoking a listing of communications
3 equipment.